

CS4471 Lab Assignment 2

Windows & Unix Network Administration

1. (25 pts) a. After logging into a Windows7 host workstation using your campus user account, click on the VMware Player icon and open an instance of an existing virtual machine (Windows 2012 server) in folder C:\mid-adv\Win_Svr2012. Boot password is **447**. Log in with a local user account **csadmin** and password **CS@ecst##**. Create a new user account for yourself that has administrative privileges. What steps were required?
 - b. On the VMware instance of Windows 2012 server, where can you configure network configuration parameters such as hostname, IP address, netmask, and default gateway? Submit screenshot showing that the VMware Player settings of the network adapter is set to **bridged** (not NAT) mode.
 - c. Configure the IP address, netmask, gateway(default router), and DNS on the Windows 2012 server using appropriate values reserved for your group. Make sure that you are not using the same IP address that the Windows7 host operating system is using. What values did you use on your Windows 2012 server? .
 - d. Verify that you can ping your default gateway and www.google.com from the Windows 2012 server Open a command prompt window (cmd.exe) and execute the commands "ipconfig" and "tracert www.google.com". Submit a screenshot of the output of each of these two commands.
2. (25 pts) a. On your Windows7 workstation, shutdown the instance of Windows 2012 server and open an instance of Ubuntu Linux. Log in with account **csadmin** and password **cs@ecst##**. Create a new user account for yourself that has administrative privileges. What steps were required?
 - b. On the VMware instance of Ubuntu Linux, where can you find network configuration parameters?
 - c. Configure the hostname, IP address, netmask, DNS, and gateway(default router) on the Linux instance. Make sure that you are not using the same IP address that the Windows7 host operating system is using. What values did you use?
 - d. Verify that you can ping your default gateway and www.google.com from the Linux instance. The VMware Player settings of the network adapter should be set to **bridged** mode. Open a Linux terminal window and execute the commands "ifconfig -a" and "traceroute www.google.com". Submit a screenshot of the output of each of these two commands.
3. (25 pts) a. What is the Ethernet address of the network interface card on your Windows7 host computer?
 - b. Which web site provides a comprehensive listing of blocks of Ethernet addresses assigned to various Ethernet card manufacturers?
 - c. Based on the first three bytes of this value, which vendor manufactured this card?
4. (25 pts) a. After shutting down VM instance of Ubuntu and restarting an instance of Windows 2012 server, create a folder named GroupX (where X is your group number) and share this folder. What steps were required?
 - b. Mount the folder from the other Windows7 computer (ie. map a network drive from another Windows7 computer to the shared folder on your Windows 2012 server) What steps were required (You may need to disable Windows firewall software on your Windows 2012 server) ?
 - c. From your Windows 2012 server, open a command prompt window (cmd.exe) and submit a screenshot showing output of command "net share". It should display the folder being shared.
 - d. From the other Windows7 computer, open a command prompt window (cmd.exe) and submit a screenshot showing output of command "net use". It should display the network folder mounted.
 - e. From the other Windows7 computer, open a command prompt window (cmd.exe) and submit a screenshot showing output of command "netstat -an". Identify the line in the output that is used for file sharing. What TCP port number is used by the Windows7 client? What TCP port is used by the Windows 2012 server?